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The Effects of Childhood and Combat-Related Trauma on Psychological Outcomes in Veterans

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by

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A Thesis submitted in partial satisfaction of
the requirements for the degree
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Each person whose signature appears below certifies that this thesis in his/her opinion is adequate, in scope and quality, as a thesis for the degree Doctor of Philosophy.

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ABBREVIATIONS

PTSD	Post-Traumatic Stress Disorder
PST	Positive Symptoms Total
GST	Global Distress and Adjustment

ABSTRACT OF THE THESIS

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Doctor of Philosophy Graduate Program in Clinical Psychology
Loma Linda University, September 2014
Kendal C. Boyd, Ph.D. Chairperson

The current study examined if childhood trauma, combat-related trauma, and their interaction predict negative psychiatric outcomes, distress, PTSD, depression, and anxiety. Participants include included 1,281 US military veterans from Loma Linda Veterans Affairs Hospital. Childhood trauma and combat trauma were significantly correlated with the amount of psychological symptoms and distress veterans face when returning from deployment. Multiple regression analysis showed that childhood trauma and combat trauma significantly predicted poor mental health outcomes, distress levels, PTSD, anxiety, and depression. Their interaction predicted increased psychiatric symptoms in veterans such that high levels of one trauma resulted in increased symptoms no matter the level of the other trauma. All other interactions between the two variables were not significant. Childhood trauma and combat trauma significantly impact mental health outcome in the current population. Individuals who are exposed to either type of trauma are more likely to experience severe psychopathology, co-morbid diagnoses, and difficulties adjusting to life post-deployment.

CHAPTER ONE

INTRODUCTION

In today's current political and economic setting, there are an increased amount of veterans who are seeking treatment of psychological symptoms. Studies have shown that heightened amount are also reporting a greater array of psychological symptoms. These veterans will often seek out services centered around PTSD, depression, and anxiety. Further, many veterans returning also endorse a history of childhood trauma. The current study seeks to examine how the exposure to combat and childhood trauma effect the development of psychological outcomes**.**

Childhood Trauma

Every year there are growing rates of children who are impacted because of exposure to traumatic experiences. These traumatic situations include, but are not limited to child physical abuse, child emotional abuse, child neglect, and child sexual abuse. Oftentimes, children that have been exposed to traumatic events in childhood are predisposed to develop Posttraumatic Stress Disorder (PTSD) (Koenen & Widom, 2009). Pratchett and Yehuda (2011) reported that in children who have been victims of sexual or physical abuse the prevalence of PTSD ranges from 34% to 65%. Furthermore, among adults who have reported being victims of childhood abuse, the prevalence of PTSD ranges from 72% to 100%. There is a strong pervasiveness of PTSD among adult survivors of childhood trauma; as such there is a growing need to understand the development and prevalence of PTSD in these individuals.

Past research revealed childhood trauma as a constant predictor of many forms of

psychological stress. Childhood trauma consists of child physical abuse, child emotional abuse, child neglect, and child sexual abuse, all of which are predictors for the development of poor psychological outcomes in adulthood, including but not limited to PTSD, depression and anxiety (Koenen & Widom, 2009; Sullivan, Fehon, Andres-Hyman, Lipschitz, & Grilo, 2006; Twaite & Rodriguez-Srednicki, 2004; R. Yehuda, S. L. Halligan, & R. Grossman, 2001b). Victims of child sexual abuse are more likely than their non-abused counterparts to have elevated levels of anxiety, depression, dissociation, memory impairment, somatization and personality disorders (Li, Ahmed, & Zabin, 2012). In addition, to predicting psychological stress, there are also links between childhood trauma and higher attempts at suicide, marriage and family problems, and posttraumatic stress disorder (PTSD) (B. S. P.-R. Donovan, Edgardo; Dowd, Thomas; Blake, Dudley D.;, 1996; A. M. Fritch, M. Mishkind, M. A. Reger, & G. A. Gahm, 2010; Goodman & Weiss, 1998; Putman, 2009; Regan, Barrett, & Gordon, 2007; Twaite & Rodriguez-Srednicki, 2004; Yehuda, et al., 2001b). Individuals that have experienced childhood trauma, specifically that of physical and sexual abuse, and physical neglect are reported to have a greater risk for developing symptoms of depression, anxiety, and PTSD than others who have not experienced childhood trauma (B. S. P.-R. Donovan, Edgardo; Dowd, Thomas; Blake, Dudley D.;, 1996; Owens et al., 2009; Yehuda, et al., 2001b). It can also severely impact the behavioral, social, emotional, and physical functioning of children; these consequences of child abuse continue into adulthood (Briere, 2004; Coates, 2010; Draper, 2008). In adulthood, the expression of these consequences is often displayed in poor psychological outcomes such as PTSD, depression, suicide, sexual promiscuity, and others.

Child physical abuse and child sexual abuse are believed to influence the way children develop secure attachments. Moreover, there is evidence that supports the claim that abuse obstructs victims from forming secure attachments that would help buffer the impact of another extreme stress or traumatic event later in life. (Twaite & Rodriguez-Srednicki, 2004). A study by Koenen and Widom (2009) found that emotional and sexual abuse in lieu of physical abuse, emotional neglect, or physical neglect is predictive of individual symptoms of PTSD. Donavon and colleagues (1996) found that childhood physical punishment was a significant predictor of the magnitude of PTSD symptoms when held as both an independent factor as well as combined with other factors. Furthermore, childhood trauma has been associated with increased risk taking behaviors, such as, taking drugs, drinking heavily, and involvement in other life threatening recreations. Exposure to such adverse events may predispose these individuals to reduce their coping skills following traumatic events in their adulthood (Owens, et al., 2009; Regan, et al., 2007). Since there is increasing evidence that childhood trauma is linked with risk taking in adulthood, it suggests that re-exposure to traumatic events later in life can result in PTSD and other poor psychological outcomes (Yehuda, et al., 2001b). Children who have suffered a traumatic upbringing may have been unable to develop the protective factors to decrease the chance of being susceptible to secondary life traumas. Child physical abuse, child emotional abuse, and child sexual abuse have all been shown to predict the development of PTSD symptoms and increased rates of depression and anxiety in adulthood; additionally, research credits this to a second traumatic experience occurring in adulthood. A traumatic experience such as combat trauma would be a sufficient enough secondary trauma that could potentially elevate PTSD symptoms and

psychological consequences in veterans who were previous victims of childhood trauma.

Combat Trauma

Past research has shown that there is a significant amount of data that examines psychological consequences in veterans, such that veterans who are exposed to combat operation face a high risk for developing poor psychiatric symptoms (A. M. Fritch, et al., 2010). These psychiatric symptoms tend to stem from the actual experience of fighting in combat. Further examination of both pre and post trauma in military personnel showed that post-military trauma exposure exhibited a dramatic increase; this was very strongly associated with PTSD symptoms (Clancy et al., 2006; Hiley-Young, Blake, Abueg, & Rozynko, 1995; McKeever, McWhirter, & Huff, 2006). Moreover, studies are beginning to assess PTSD symptoms and severity when military personnel return from deployment, one such study (Lapierre, Schwegler, & LaBauve, 2007) found that 44% of U.S. soldiers returning from deployment in Iraq or Afghanistan came back with clinically significant levels of PTSD, depressive symptoms, or both. This study and others like it have repeatedly shown that PTSD, depression, and anxiety have continued to be a result of combat exposure (Clancy, et al., 2006; Friedman, Schnurr, & McDonagh-Coyle, 1994).

Rates of PTSD, depression and anxiety are increasing for service members returning from combat. Miliken and colleagues (2007), found that three to six months after service members returned from combat, they screened positive for many mental health concerns, including PTSD. Furthermore, they found that servicemen that were on active duty had mental health issues increase around 27% higher compared to those not on active duty. Moreover, upon returning from combat, a majority of service members

report emotional trauma due to experiencing an event that is particularly horrible, traumatic or stressful (Gellis, Gehrman, Mavandadi, & Oslin, 2010). The exposure to combat has been shown to have devastating effects on individuals' mental processes. This inhibits service members from returning to a normal lifestyle once they have returned home. Furthermore, combat exposure has been revealed as an indicator of higher PTSD scores, higher levels of anxiety and higher levels of depression (Brown, Antonius, Kramer, Root, & Hirst, 2010; Grieger et al., 2006; Pereira, 2002).

Combat and Childhood Trauma

Individuals subjected to childhood trauma, such as physical abuse, emotional abuse, sexual abuse, and neglect, are at a greater risk for developing PTSD, depressive and anxious symptoms as adults. These outcomes can often occur due to an increased amount of risk taking behavior. Research has indicated that this same pattern of behavior can be observed in veterans that experience combat-related psychological stresses. Therefore, if an individual has been exposed to a trauma at one stage in their life, and then they are re-exposed to a different, but just are harmful trauma in their adulthood, it is possible that the likelihood of experiencing poor psychological symptoms increases (Briere, 2004; Coates, 2010; Goodman & Weiss, 1998; Suliman, 2009). It has been found that when an individual is a victim of multiple traumas in their lifetimes, such as child sexual abuse or child physical abuse, and has been subjected to further traumatic events in adulthood, they are at higher risk of developing more severe PTSD symptoms (Scott, 2007). Both combat trauma and child physical abuse were shown to have self-determining effects on later symptomatology of PTSD and depression (April M. Fritch,

Matt Mishkind, Mark A. Reger, & Gregory A. Gahm, 2010). One study that examined combat-related trauma and child physical abuse found that they were principal independent predictors of PTSD, with combat trauma being the stronger predictor of the two (Fontana & Rosenheck, 1994). Therefore, research indicates independently both are stable predictors of PTSD and depression.

Findings have been mixed in studies of the interaction between childhood trauma and combat trauma on poor psychological outcomes. A study done by Stein and colleagues (2005) implied that if a service member is a victim of child abuse it might reduce the impact of combat trauma. The soldier would exhibit fewer symptoms of psychological disorders; in particular, less symptoms of PTSD, depression, or anxiety would be present. A recent study found that in examining an interaction between adverse childhood experiences and combat trauma on PTSD severity, those that had exposure to childhood traumatic events may display lower reactivity to their combat exposure (Cabrera, Hoge, Bliese, Castro, & Messer, 2007). The authors reasoned that since service members had already learned to cope with a traumatic event in childhood, they would be better equipped to deal with a traumatic experience in adulthood. They argued that this may be a "ceiling effect" and that perhaps veterans have already manifested symptoms with their initial trauma in full leaving low reactivity levels (Cabrera, et al., 2007; Stein, et al., 2005). Research has produced studies that have found the ceiling effect as well as increased PTSD severity due to the interaction of childhood trauma and combat exposure. In addition, other studies that have examined the interaction between combat trauma and childhood trauma have found that combat exposure may be interacting with childhood trauma in a way that soldiers who suffered traumatic experiences such as abuse in their

childhood may be more vulnerable to the effects of combat stressors (Iversen, 2007; D. W. K. King, L.A., Gudanowski, D.M.; Foy, D.W. , 1996; Zaidi & Foy, 1994).

Furthermore, the more traumatic events an individual is subjected to the more likely they are to develop poor psychological outcomes; the severity of the traumas they encounter will also increase the severity of the symptoms. (B. S. P.-R. Donovan, Edgardo; Dowd, Thomas; Blake, Dudley D.;, 1996; A. M. Fritch, et al., 2010; Scott, 2007). When an individual is subjected to multiple traumas across their lifespan they are constantly experiencing events that lead to PTSD, therefore, they are at a greater risk of developing PTSD symptoms. Cabrera and colleagues (2007) discovered that veterans who had been exposed to two or more adverse childhood events were more likely to screen positive for depression than non-exposed peers; furthering the claim that multiple trauma's strongly predict poor mental health. Furthermore, evidence supports the claim that individuals that are subjected to multiple trauma in their lives are likely to experience more severe symptoms of PTSD and depression (Suliman, 2009).

Research has shown that a link exists between combat exposure, combat trauma, and childhood trauma that predict PTSD symptoms and severity supporting the idea that multiple traumas are predictive of increased PTSD symptoms and severity. Bremner and colleagues (1993) found that veterans with PTSD reported higher rates of childhood physical abuse, 7% to 26%, compared to veterans without PTSD. Similarly, Zaidi and Foy (1994) found that a relationship existed between child physical abuse and severe PTSD symptoms in 45% of veterans who were victims of child physical abuse. The establishments that this relationship does exist allows further exploration and understand what makes the relationship between child abuse and combat exposure a good predictor

of severity of PTSD and other psychological symptomology.

Child abuse and combat exposure are related to PTSD, depression, and anxiety. Additionally, childhood trauma and combat-related trauma have been shown to have a relationship with one another in predicting an outcome of depression symptoms, PTSD symptoms and severity; they show predictive strength separately but also when interacting, and supports the stress evaporation theory (B. S. P.-R. Donovan, Edgardo; Dowd, Thomas; Blake, Dudley D.;, 1996; Twaite & Rodriguez-Srednicki, 2004). Stress evaporation theory states there are pre-military factors that play an imminent role in the development of war-related PTSD, or combat-related PTSD. This theory states that individuals without a pre-existing susceptibility tend to recover from combat-related trauma without any major interference, whereas those that do have a pre-existing susceptibility have trouble integrating back into a normal life. Furthermore, it illustrates that there is a mediating role in the relationship between child abuse and adult PTSD (Brown, et al., 2010; B. S. P.-R. Donovan, Edgardo; Dowd, Thomas; Blake, Dudley D.;, 1996; A. M. Fritch, et al., 2010; Goodman & Weiss, 1998; Owens, et al., 2009; Twaite & Rodriguez-Srednicki, 2004). It also reaffirms other research with findings that individuals who experience both child abuse and combat-related trauma are at can lead to an increased risk of developing PTSD symptoms.

Posttraumatic Stress Disorder

Posttraumatic Stress Disorder (PTSD) is defined in the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5) as "a condition emanating from exposure to actual of threatened events;" such as death, serious injury, or sexual violence. Exposure to the

event can be direct, witnessed, indirect, or repeated or extreme indirect exposure to qualifying events. It is exemplified by four symptom clusters: "intrusion symptoms; avoidance; negative alterations in cognitions and mood; and alterations in arousal and reactivity" (American Psychiatric Association (4th ed., 2000; Association, 2013). Symptoms also associated with PTSD include depression, impulsivity, and feelings of guilt; furthermore, substance abuse, and suicidality often co-occur with PTSD (L. A. King, King, Leskin, & Foy, 1995). Research has exhibited that PTSD can have devastating consequences and impact the daily lives of those effected. It remains to be understood why certain populations are at a greater risk of developing symptoms and symptom severity.

Posttraumatic stress disorder is a widespread psychological disorder found in individuals that have experienced an extremely distressing event. These individuals have encountered occurrences where they have faced death and/or felt extreme helplessness. Due to these experiences individuals often have severe symptomology develop, which impedes with their ability to carry out their daily lives without hardship. Some groups known for high occurrences of PTSD symptomology include military veterans, adult survivors of child abuse, victims of sexual violence, and survivors of domestic abuse. In particular, an increasing amount of military veterans that are returning from deployment are dealing with symptoms of PTSD. Therefore, there is a need for further research to understand what makes certain military personnel at a greater risk for developing combat-related PTSD (as well as other psychological disruptions) after returning from deployment.

Research has examined both childhood trauma and combat exposure separately

concerning the role those factors play in developing poor psychological outcomes. In addition, studies have continued examining the relationship between childhood trauma and combat-related trauma in predicting PTSD symptoms and severity. Clancy and colleagues (2006) found that the impact of childhood trauma on the severity of PTSD symptomology was partially mediated by exposure to traumatic events (such as combat) in adulthood. This study confirmed the existence of the mediating relationship between child abuse and combat-related trauma that Zaidi and Foy (1994) alluded the existence of in their earlier study. This mediating relationship demonstrates that combat-related trauma has a direct effect on PTSD development, as well as, an effect in conjunction with child abuse. While most research has focused on veterans from earlier wars, such as the Vietnam War, more recent studies are examining if this interaction between child trauma and combat-related trauma exists in today's service members. They have found that it is still as prevalent in today's military service members as it was in veterans who served in earlier wars (such as Vietnam). Child physical abuse and combat exposure were associated with an increased amount mental health symptoms in U.S. service members returning from deployment in operation Iraqi freedom (OIF) and operation enduring freedom (OEF) (A. M. Fritch, et al., 2010; Gellis, et al., 2010). In fact, this relationship is shown to exist in today's service members at the same rate it showed up in veterans who fought in the Vietnam War, Gulf war, and others. The relationship between childhood trauma and combat trauma has consistently been related to increased PTSD symptoms within different facets of war. However, there are contrasting theories as to why this relationship exists, illustrating a need to further understand the relationship. Furthermore, when combined to predict PTSD symptomology childhood trauma and combat trauma

are stronger predictors together than when separated.

Psychological Outcomes for Individuals with Childhood or Combat Trauma

Individually, childhood trauma and combat exposure survivors have an increased amount of susceptibility in developing psychological consequences. These consequences vary greatly on an individual basis; however, research has demonstrated that they are more likely than the general population to have increased mental health issues (Boyce & Harris, 2011; Briere, 2004; Campbell & Morrison, 2007; Cuevas, Finkelhor, Clifford, Ormrod, & Turner, 2010; Draper, 2008; Engel, Engel, Campbell, & McFall, 1993; Friedman, et al., 1994; Grote et al., 2012; Lamers-Winkelman, Willemen, & Visser, 2012; Sansone, Mueller, Mercer, & Wiederman, 2010). In particular, those that have faced either childhood trauma or combat exposure have been shown to have a higher likelihood of developing PTSD, depression, anxiety, and higher susceptibility to developing drug addiction (Briere, 2004; Taft, Vogt, Marshall, Panuzio, & Niles, 2007; Wright, Cabrera, Eckford, Adler, & Bliese, 2011; Zaidi & Foy, 1994). These poor psychological outcomes have been evidenced in both victims of childhood trauma and combat trauma. In addition, these factors dispose individuals to poor mental health outcomes, it is important for research to further understand how these factors interact and effect mental health outcomes.

Childhood trauma and child abuse have been linked to many poor psychological health outcomes in adulthood. These outcomes often debilitate victims of childhood trauma from living a mentally stable life in adulthood. Victims of childhood trauma are

known not only for exhibiting risky behavior in youth (B. S. Donovan, Edgardi, Dowd, Thomas, & Dudley, 1996; R. Yehuda, S. Halligan, & R. Grossman, 2001a), but also for their susceptibility for drug dependence (Sansone, et al., 2010; Sledjeski, Speisman, & Dierker, 2008; Walton et al., 2011). Research indicates that their exposure to these traumatic events handicaps their ability to build up strong defenses, which can impact individuals' daily lives. Furthermore, childhood trauma can impede an individual's ability to cope with live events and develop secure relationships with others (Boyce & Harris, 2011; Cuevas, et al., 2010; Goldsmith, Freyd, & DePrince, 2009).

Many veterans from different eras of combat, ranging from Vietnam to present day OEF have returned from deployment with symptoms of poor mental health (Hassija, Jakupcak, Maguen, & Shipherd, 2012). The most prominent mental health concern is the increasing prevalence of PTSD in those returning from combat. Studies estimate that there has been around 15–20% of military personnel returning from combat duty from tours in OEF and OIF that met PTSD criteria 3–4 months later (Hoge et al., 2004). Furthermore, a plethora of psychological symptoms are found in this population, including high levels of depression and anxiety (Bedics, Atkins, Comtois, & Linehan, 2012; Brown, et al., 2010; Cully, Phillips, Kunik, Stanley, & Deswal, 2010; Hassija, et al., 2012; Qureshi, Pyne, Magruder, Schulz, & Kunik, 2009; Rauch et al., 2010) Other psychological symptoms found in this population include, but are not limited to increased somatization (Beckham et al., 1998; Church, 2010; Ginzburg & Solomon, 2011), higher susceptibility and rates of drug addiction (Hiley-Young, et al., 1995; Sledjeski, et al., 2008; Wolfe & Maisto, 2000), high levels of hostility (Novaco, Swanson, Gonzalez, Gahm, & Reger, 2012; Phillips, LeardMann, Gumbs, & Smith, 2010; Wright, et al.,

2011), interpersonal problems (Roberts et al., 1982) and paranoia. This population has been found to have high levels of poor psychological outcomes.

Since poor psychological outcomes such as paranoia, drug addiction, depression, and anxiety are very prevalent among veterans returning from war as well as victims of childhood trauma; current research seeks to find out if childhood trauma and combat trauma act as factors that determine possible psychological disruptions that will develop for service members after combat. Specifically, the current study aims to examine if childhood trauma, combat trauma, and the interaction of childhood trauma and combat trauma account for poor psychological outcomes. Subsequently, both populations are individually at high risk for developing adverse psychological symptoms, and individuals that have been subjected to both may develop a higher severity of psychological distress. The study hopes to understand how much the interaction of childhood trauma and combat exposure account for the development of harmful psychological outcomes.

Aims

The current study aims to examine the relationship between childhood trauma and psychological outcomes in veterans, controlling for combat-related trauma. The first aim of the study seeks to examine if veterans who have been exposed to child trauma will have higher rates of negative mental health outcomes and more serve psychological outcomes, such as higher rates of distress, compared to those who have not been exposed to child trauma. Furthermore, this study will examine if child abuse is indicative of more severe symptoms by comparing childhood trauma and combat-related trauma. The following hypotheses are proposed for the first aim:

- Hypothesis A1: Childhood trauma, combat trauma, and their interaction will predict total number of psychological symptoms that veterans experience post combat
- Hypothesis A2: Childhood trauma, combat trauma, and their interaction will predict severity of global distress and adjustment problems.

The second aim of the study is to explore the effect of childhood trauma and combat trauma and their interaction on particular psychological outcomes, which previous research has examined with varying results. Research has shown that both childhood trauma and combat-related trauma individually impact psychological well-being, and can lead to psychological outcomes such as PTSD, anxiety, and depression (Iversen, 2007), however, few studies have examined how their interaction affects these outcomes. There has been contrasting results surrounding the interaction effects of childhood trauma and combat trauma. It is still not known whether the interaction leads to higher susceptibility or if there is a ceiling effect (Hassija, et al., 2012; Iversen, 2007). The following hypotheses are proposed for the second aim:

- Hypothesis B1: Childhood trauma, combat trauma, and their interaction will predict PTSD severity.
- Hypothesis B2: Childhood trauma, combat trauma, and their interaction will predict depression severity.
- Hypothesis B3: Childhood trauma, combat trauma, and their interaction will predict anxiety severity.

CHAPTER TWO

METHODS

Participants

Participants included 1,281 US military veterans, who attended an initial treatment planning session as part of the Trauma Recovery Services Program in the General Outpatient Mental Health Clinic at the Loma Linda Veterans Affairs Hospital from 2006 to 2010. The average age of the sample was 55.6 years, with the majority being Non-Hispanic Caucasian males (Table 1).

Table 1

Demographic Characteristics

	N	%
Age	55.6 ∓ 7.8	
Gender		
Male	1136	98.7
Female	130	10.3
Ethnicity		
Caucasian	580	45.3
African American	199	15.5
Hispanic	279	21.8
Asian	29	2.3
Reported Other	33	2.5
Did Not Disclose	161	12.6
Highest level of Education		
Some High School or Less	75	5.9

High School Degree	413	32.2
Some College	457	35.7
Two years of College	140	10.9
Undergraduate Degree	105	8.2
Post Undergraduate Education	39	3.1
Did Not Disclose	52	4.1
Relationship Status		
Married	480	37.5
Single and Never Married	172	13.4
Divorced	328	25.6
Remarried	196	15.3
Widowed	32	2.5
Separated	69	5.4
Did not disclose	4	.3
Periods of Service		
World War II	14	1.1
Korea Service	38	3
Vietnam War	653	52.9
Desert Storm Service	131	10.3
Afghanistan Service (Post 9/11)	46	3.6
Operation Iraqi Freedom	365	27.7
Between Wars	104	8.1
Peace Keeping Mission	60	4.7
Other Service Reported	104	8.1

*Note: Periods of Service were calculated individually as some participants served in more than one service. Totals do not add up to 100 percent

Measures

General Information

Upon entrance into PTSD treatment at the Loma Linda VA during 2006 to 2010, veterans were given a general information survey. It asked about demographic information, including marital status, age, race, level of education, and era of service. It also included history questions, such as what period of service they were deployed in, and health questions such as if they have vision problems.

Childhood Trauma Variable

Six questions were used from the general information survey to assess abuse and trauma experienced during childhood. A sample item includes, "H*ave you ever been physically abused or assaulted?*". Participants respond to whether or not particular events occurred, using a dichotomous rating of 0 (No) or 1 (Yes) indicating whether they were exposed to traumatic events. These questions were assigned an item value (0 or 1) that was combined with each additional question to form a continuous scale item. The scale has a score ranging from no evidence of childhood trauma (0) to experienced high amounts of childhood trauma (6).

Combat Exposure Variable

Seven questions were used to assess for combat exposure during deployment. A sample item includes, "*Have you experienced severe injury or think you were going to die?"*. Participants responded to such items using a dichotomous scale of *no* (1) and *yes* (2). Another sample item includes "*Have you ever observed or participated in certain*

war atrocities" to which participants responded using *neither* (0), *observed* (1), and *participated* (2). The seven combat exposure questions will be added up on a scale with score ranging from no combat exposure (0) to severe combat exposure (8).

Symptoms of Distress Variables

The Los Angeles Symptoms Checklist **(**King, et al., 1995) is a self-report measure of PTSD and its associated features. Participants are asked to rate 43 possible symptoms of PTSD (i.e. *Difficulty falling asleep, abusive drinking, severe headaches*) on a five point likert scale ranging from *not a problem* (0) to *extreme problem* (4). The sum of all the ratings of the 43 items provides a global assessment of problems of distress as well as adjustment problems that could be a consequence of trauma exposure. In addition, 17 PTSD symptoms score yields a single continuous score that measures PTSD severity. This scale has shown an internal consistency of $\alpha = .95$ (King, et al., 1995). It has also been validated across many populations and therefore fits the task in assessing PTSD (King, et al., 1995). The current study produced an internal consistency of $\alpha = .92$

The Los Angeles Symptoms Checklist is a self-report measure that has been used on a variety of populations, (i.e. Vietnam veterans, battered women, adult survivor of sexual abuse, martially distressed women, psychiatric outpatients, and high risk adolescents). It was developed so that it would provide categorical and continuous measures of PTSD for diagnosis assessment and PTSD severity. The instrument has a high internal consistency, with alphas ranging from .94 (PTSD severity) to .95 (global assessment of distress), as well as, high test-retest reliability after two weeks, at .90 (PTSD severity) to .94 (global assessment of distress); all for the dominating factor of

PTSD. Furthermore, convergent validity was established using the SCID-R for PTSD diagnosis showing a hit rate of 80% and running logistic regression for the 17-PTSD items (King, et al., 1995).

The Symptom Assessment 45

The Symptom Assessment 45 (SA-45; reference) is a 45-item questionnaire that examines psychiatric symptomatology based on distress via a checklist. It was developed based on the Symptom Checklist 90 (SCL90; reference), a psychological outcome questionnaire. Participants are asked to rate each item, such as "*feeling blue"* by "*how much the problem has bothered or distressed you during the past 7 days, including today*" on a severity scale that ranges from not at all (1) to extremely (5). The questionnaire contains two measures that examine general psychological issues. The first measure is the global severity index (GSI), this assesses overall psychological distress by adding the sums of the subscales together. The second measure is the positive symptom total (PST), which examines the range of the symptoms. It is calculated by subtracting the total number of "*not at all*" responses from 45. In addition, the SA-45 has the following nine subscales: anxiety, depression, obsessive-compulsive, somatization, phobic anxiety, hostility, interpersonal sensitivity, paranoid ideation, and psychoticism. The current study is only using two of the subscales, depression and anxiety. Overall, the full scale has demonstrated good test-retest reliability(r = .86) and good internal consistency (α = 0.95). This scale was also shown to have concurrent validity by comparison against the Structured Clinical Interview for DSM-IV, for diagnostic accuracy at 83%. Specifically, the scale had a high match rate in diagnosis of psychological disorders when compared to

diagnosis obtained by the SCID. It has also been shown good divergent and convergent validity (Davison, 1997).

Anxiety (ANX)

The first scale on the SA-45 has five items that measure anxiety (nervousness, panic, tension, apprehension). Participants are asked to rate each item, such as "*feeling fearful"* by "*how much the problem has bothered or distressed you during the past 7 days, including today*" on a severity scale that ranges from not at all (1) to extremely (5). The raw score for the scale is calculated by adding up the numerical value of each item on the scale. Scores range from zero to forty-five. In the current study, the scale demonstrated strong internal consistency (α = 0.92).

Depression (DEP)

The second scale on the SA-45 has five items that measure depression (hopelessness, loneliness, worthless, loss of interesting life). Participants are asked to rate each item, such as "*feeling lonely"* by "*how much the problem has bothered or distressed you during the past 7 days, including today*" on a severity scale that ranges from not at all (1) to extremely (5). The raw score for the scale is calculated by adding up the numerical value of each item on the scale. Scores range from a score of zero to forty-five (Church, 2010). . In the current study, the scale demonstrated good internal consistency (α = 0.88).

Procedure

The participants were patients at the Loma Linda VA Hospital who sought

psychological services for psychological treatment. During their initial assessment the participants filled out a questionnaire that asked them several questions about whether they had been emotionally, physically or sexually abused, and if that abuse occurred in childhood. The questionnaire also included questions concerning the amount of combat trauma that was experienced. Additionally, the participants completed the Los Angeles Symptoms Checklist and the SA-45.

Statistical Analysis

All hypotheses were tested using a hierarchical multiple regression in a three step series, entering in childhood trauma, childhood and combat trauma, and finally childhood and combat trauma and their interaction to determine its effect on the symptoms veterans experience. The dependent variables were number of symptoms, global distress/adjustment, PTSD, depression, and anxiety.

CHAPTER THREE

RESULTS

Hypothesis A1: Hierarchical Model Building (PST)

A hierarchical multiple regression was completed to evaluate if childhood trauma, combat trauma and their subsequent interaction effect would predict the amount of psychiatric symptoms veterans experience. The first model included a linear regression using childhood trauma as the predictor on the amount of psychiatric symptoms. The model was a significant fit of the data F (1,686) = 32.15, $p < .001$. It showed that childhood trauma accounts for 4.5% of the variance in amount of psychiatric symptoms (R^2=0.045). Furthermore, childhood trauma was found to be a significant predictor variable, $\beta = .212$, $t = 5.67$, $p < .001$. Thus, the model was retained.

The second model included childhood trauma and combat related trauma as predictor variables. This model was also found to be a significant fit of the data, F (2,684) = 29.38, $p < .001$, and showed a statistically significant improvement in model fit when compared to the first model, $\Delta F = 25.40$, $p < .001$. Since the F change was significant, the model explained an additional 3.4% of the variance in amount of psychiatric symptoms, $\Delta R^2 = .034$ the addition of combat trauma to the model was a statistically significant improvement in model fit when compared to the first model, $\beta = .212$, $t = 5.67$, $p < .001$. It also indicated that combat trauma is valid predictor, $\beta = .186$, $t = 5.05$, $p < .001$. Therefore, the model was retained.

The third model included childhood trauma, combat-related trauma, and childhood x combat trauma as predictor variables. The model was also found to be a significant fit of the data, F (3,683) = 22.03, $p < .001$, which was a statistically significant

improvement in model fit when compared to the first model, $\Delta F = 6.83$, $p < .01$. The model explained an additional .9% of the variance in amount of psychiatric symptoms, $\Delta R^2 = .009$, and the interaction of childhood x combat-related trauma was found to be a significant predictor of the outcome variable in this model, $\beta = -.48$, $t = -2.61$, $p < .01$. Thus, this model was retained as the final model.

Results showed that childhood trauma, combat-related trauma, and their interaction, accurately predict the amount of psychiatric symptoms that veterans encounter post combat (Table 2). The variables were then trichotomized and graphed to view the interaction (Figure 1).

Table 2

Hierarchical Regression Analysis Predicting Positive Symptoms (n=686)

	Model 1		Model 2		Model 3	
Variable	*B(SE)*	*B*	*B(SE)*	*β*	*B(SE)*	*β*
Childhood Trauma	1.505 (.26)	.212***	1.39 (.262)	.196***	4.67(1.28)	.66***
Combat-Related Trauma			2.06 (.410)	.186***	2.87(.51)	.26***
Childhood X Combat-related Trauma					-.73(.28)	-.48**
R	.212		.281		.297	
R^2	.045		.079		.088	
F for change in R	32.15***		25.45***		6.83**	
F	(1,685) 156.47		(2,684) 107.13		(3,683) 70.31	

*$p < .05$, **$p < .01$, ***$p < .001$

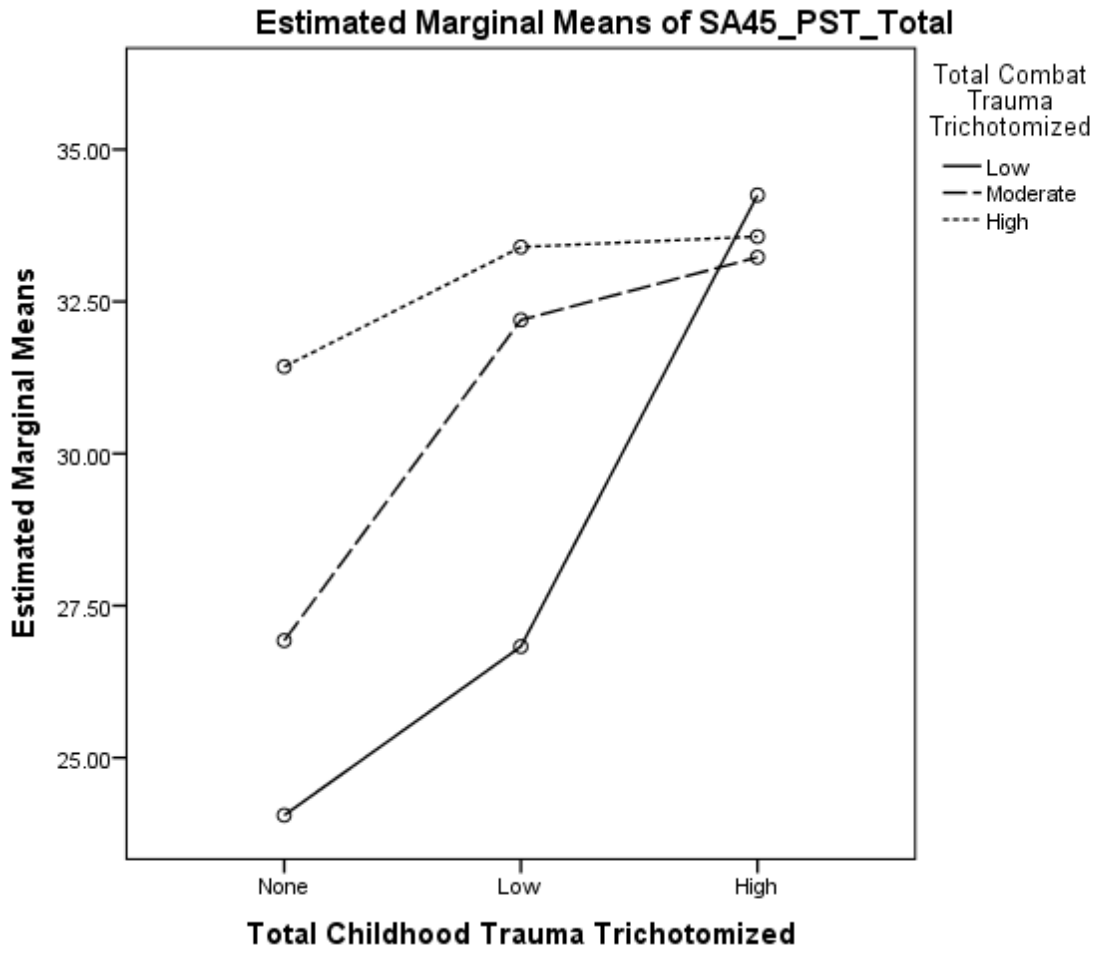

Figure 1. Interaction between Childhood Trauma and Combat-Related Trauma

Hypothesis A2: Hierarchical Model Building (GST)

A hierarchical multiple regression was completed to evaluate if childhood trauma, combat trauma and their subsequent interaction effect would predict the problems and distress occurring in veterans. The first model, model one included a linear regression using childhood trauma predicting the amount of distress and problems. The model was a significant fit of the data F (1,835) = 28.06, $p < .001$, it shows that childhood trauma accounts for 3.3% of the variance in the amount distress and problems (R^2=0.033).

Furthermore, childhood trauma was found to be a significant predictor variable, $\beta = .180$, $t = 5.30$, $p < .001$. Thus, the model was retained.

The second model included childhood trauma and combat related trauma as predictor variables. This model was also found to be a significant fit of the data, $F(2,834) = 47.18$, $p < .001$, and showed a statistically significant improvement in model fit when compared to the first model, $\Delta F = 64.17$, $p < .001$. Since, the F change was significant, the model explained an additional 6.9% of the variance in amount of psychiatric symptoms, $\Delta R^2 = .069$, and was a statistically significant improvement in model fit when compared to the first model, $\beta = .180$, $t = 5.30$, $p < .001$. It also, made combat trauma a valid predictor, $\beta = .264$, $t = 8.01$, $p < .001$. Therefore, the model was retained.

The third model included childhood trauma, combat-related trauma, and childhood x combat trauma as predictor variables. The model was also found to be a significant fit of the data, $F(3,838) = 32.72$, $p < .001$, but did not show a statistically significant improvement in model fit when compared to the first model, $\Delta F = 3.52$, $p > .05$. Even though the F change was not significant, the model explained an additional 0.4% of the variance in global distress and problems, $\Delta R^2 = .004$, and it was not found to be a significant predictor of the outcome variable in this model, $\beta = -.307$, $t = -1.88$, $p > .05$.Thus, this model was rejected. Therefore, childhood trauma and combat-related trauma, but not their interaction, predict the amount of psychiatric symptoms veterans encounter post combat (Table 3).

Table 3

Hierarchical Regression Analysis Predicting Global Assessment of Problem Distress and Adjustment (n=836)

	Model 1		Model 2		Model 3	
Variable	*B(SE)*	*β*	*B(SE)*	*β*	*B(SE)*	*β*
Childhood Trauma	3.65(.69)	.180***	3.13(.668)	.155***	9.06(3.23)	.447**
Combat-Related Trauma			8.23(1.03)	.103***	9.70(1.29)	.311***
Childhood X Combat-related Trauma					-1.32(.704)	-.307
R	.180		.319		.325	
R^2	.033		.102		.105	
F for change in R	28.06***		64.17***		3.53	
F	(1,835) 28.06		(2,834) 47.18		(3,833) 32.72	

*p<.05, **p<.01, ***p<.001

Hypothesis B1: Hierarchical Model Building (PTSD)

A hierarchical multiple regression was completed to evaluate if childhood trauma, combat trauma and their subsequent interaction effect would predict post-traumatic stress disorder occurring in veterans. The first model, model one included a linear regression using Childhood trauma predicting PTSD. The model was a significant fit of the data F (1,835) = 12.51, p <.001, it shows that childhood trauma accounts for 1.5% of the variance in the amount distress and problems (R^2=0.015). Furthermore, childhood trauma was found to be a significant predictor variable, β = .121, t = 3.53, p < .001. Thus, the model was retained.

The second model included childhood trauma and combat related trauma as predictor variables. This model was also found to be a significant fit of the data, F (2,834) = 32.80, $p < .001$, and showed a statistically significant improvement in model fit when compared to the first model, $\Delta F = 52.33$, p<.001. Since the F change was significant, the model explained an additional 7.3% of the variance in posttraumatic stress disorder, $\Delta R^2 = .073$, and was a statistically significant improvement in model fit when compared to the first model, $\beta = .121$, $t = 3.53$, $p < .001$. It also, made combat trauma a valid predictor, $\beta = .242$, $t = 7.23$, $p < .001$. Therefore, the model was retained.

The third model included childhood trauma, combat-related trauma, and childhood x combat trauma as predictor variables. The model was also found to be a significant fit of the data, F (3,833) = 22.79, $p < .001$, but did not show a statistically significant improvement in model fit when compared to the first model, $\Delta F = 2.63$, $p > .05$. Even though the F change was not significant, the model explained an additional 0.3% of the variance in posttraumatic stress disorder, $\Delta R^2 = .003$, and it was not found to be a significant predictor of the outcome variable in this model, $\beta = -.269$, $t = -1.62$, $p > .05$.Thus, this model was rejected. Therefore, childhood trauma and combat-related trauma, but not their interaction, accurately predict the amount of psychiatric symptoms veterans encounter post combat (Table 4).

Table 4

Hierarchical Regression Analysis Predicting Post-Traumatic Stress Disorder (n=836)

	Model 1		Model 2		Model 3	
Variable	*B(SE)*	*β*	*B(SE)*	*β*	*B(SE)*	*β*
Childhood Trauma	1.12 (.316)	.121***	.901(.309)	.098**	3.27(1.49)	.354**
Combat-Related Trauma			3.43(.474)	.242***	4.02(.597)	.284***
Childhood X Combat-related Trauma					-.528(.325)	-.269
R	.121		.270		.275	
R^2	.015		.073		.076	
F for change in R	12.51***		52.34***		2.63	
F	(1,835) 12.51		(2,834) 32.81		(3,833) 22.79	

*p<.05, **p<.01, ***p<.001

Hypothesis B2: Hierarchical Model Building (Depression)

A hierarchical multiple regression was completed to evaluate if childhood trauma, combat trauma and their subsequent interaction effect would predict post-traumatic stress disorder occurring in veterans. The first model, model one included a linear regression using Childhood trauma predicting rates of depression. The model was a significant fit of the data F (1,835) = 34.23, p <.001, it shows that childhood trauma accounts for 3.9% of the variance in "the amount distress and problems" (R^2=0.039). Furthermore, childhood trauma was found to be a significant predictor variable, β = .198, t = 5.81, p < .001. Thus, the model was retained.

The second model included childhood trauma and combat related trauma as predictor variables. This model was also found to be a significant fit of the data, F (2,834) = 28.04, $p < .001$, and did show a statistically significant improvement in model fit when compared to the first model, $\Delta F = 21.03$, $p < .001$. Since, the F change was significant, the model explained an additional 2.4% of the variance in posttraumatic stress disorder, $\Delta R^2 = .024$, and combat trauma which was a statistically significant improvement in model fit when compared to the first model, $\beta = .198$, $t = 5.81$, $p < .001$. It also, made combat trauma a valid predictor, $\beta = .154$, $t = 4.59$, $p < .001$. Therefore, the model was retained.

The third model included childhood trauma, combat-related trauma, and childhood x combat trauma as predictor variables. The model was also found to be a significant fit of the data, F (3,833) = 19.58, $p < .001$, but did not show a statistically significant improvement in model fit when compared to the first model, $\Delta F = 2.55$, $p > .05$. Even though the F change was not significant, the model explained an additional 0.3% of the variance in posttraumatic stress disorder, ($\Delta R^2 = .003$), and it was not found to be a significant predictor of the outcome variable in this model, $\beta = -.267$, $t = -1.59$, $p > .05$.Thus, this model was rejected. Therefore, childhood trauma and combat-related trauma, but not their interaction, predict the amount of psychiatric symptoms veterans encounter post combat (Table 5).

Table 5

Hierarchical Regression Analysis Predicting Depression (n=836)

	Model 1		Model 2		Model 3	
Variable	*B(SE)*	*β*	*B(SE)*	*B*	*B(SE)*	*β*
Childhood Trauma	.669 (.120)	.198***	.646(.119)	.183***	1.54(.573)	.438***
Combat-Related Trauma			119(.182)	.182***	1.06(.229)	.196**
Childhood X Combat-related Trauma					-.200(.125)	-.267
R	.198		.251		.257	
R^2	.039		.063		.066	
F for change in R	34.23***		21.03***		2.56	
F	(1,835) 34.23		(2,834) 28.04		(3,833) 19.58	

*p<.05, **p<.01, ***p<.001

Hypothesis B3: Hierarchical Model Building (Anxiety)

A hierarchical multiple regression was completed to evaluate if childhood trauma, combat trauma and their subsequent interaction effect would predict the amount of psychiatric symptoms veterans experience. The first model, model one included a linear regression using childhood trauma predicting anxiety. The model was a significant fit of the data F (1,835) = 16.54, p < .001, it shows that childhood trauma accounts for 1.9% of the variance in anxiety (R^2 = 0.019). Furthermore, childhood trauma was found to be a significant predictor variable, β = .139, t = 4.07, p < .001. Thus, the model was retained.

The second model included childhood trauma and combat related trauma as predictor variables. This model was also found to be a significant fit of the data, F (2,834) = 26.15, $p < .001$, and did show a statistically significant improvement in model fit when compared to the first model, $\Delta F = 35.08$, $p < .001$. Since, the F change was significant, the model explained an additional 4.20% of the variance in anxiety symptoms, $\Delta R^2 = .040$, and was a statistically significant improvement in model fit when compared to the first model $\beta = .139$, $t = 4.07$, $p < .001$. It also, made "combat trauma" a valid predictor, $\beta = .200$, $t = 5.92$, $p < .001$. Therefore, the model was retained.

The third model included childhood trauma, combat-related trauma, and childhood and combat trauma as predictor variables. The model was also found to be a significant fit of the data, F (3,833) = 18.55, $p < .001$, which was not a statistically significant improvement in model fit when compared to the first model, $\Delta F = 3.21$, $p < .05$. The model explained an additional 0.4% of the variance in anxiety symptoms, ($\Delta R^2 = .004$), and the interaction of childhood and combat-related trauma was not found to be a significant predictor of the outcome variable in this model, $\beta = -.300$, $t = -1.79$ $p < .05$. Thus, this model was rejected. Therefore, childhood trauma and combat-related trauma, but not their interaction, predict the amount of psychiatric symptoms veterans encounter post combat (Table 6).

Table 6

Hierarchical Regression Analysis Predicting Anxiety (n=836)

	Model 1		Model 2		Model 3	
Variable	*B(SE)*	*B*	*B(SE)*	*β*	*B(SE)*	*β*
Childhood Trauma	1.24(.304)	.139***	1.06 (.299)	.120***	3.60(1.45)	.406*
Combat-Related Trauma			2.73 (.460)	.200***	3.36(.597)	.246***
Childhood X Combat-related Trauma					-.566(.316)	-.300
R	.139		.243		.250	
R^2	.019		.059		.063	
F for change in R	16.55***		35.08***		3.21	
F	(1,835) 16.55		(2,834) 26.15		(3,833) 18.55	

*p<.05, **p<.01, ***p<.001

CHAPTER FOUR

DISCUSSION

This study suggests that both childhood and combat-related trauma are associated with increased mental health symptoms in U.S. veterans. Individuals with a history of childhood trauma and combat-related trauma are likely to have increased amounts of psychiatric symptoms. This supports prior research findings that both childhood and combat trauma individually have an effect on overall psychiatric health (Banyard, Williams, & Siegel, 2001; Boyce & Harris, 2011; Briere, 2004; Brooks et al., 2014; Brown, et al., 2010; Campbell & Morrison, 2007; Coates, 2010; Felsher, Derevensky, & Gupta, 2010; Silverman, 1972). The effects of childhood and combat related trauma were also significantly predictive of mental health outcomes.

Results of this study indicated that a positive relationship exists between childhood trauma & mental health symptoms, such that individuals with higher rates of childhood trauma are associated with higher rates psychiatric symptoms. Further, the current study supports previous research which concluded that childhood related trauma was shown to have positive relationships corresponding with the amount of symptoms veterans encounter, as well as their levels of overall distress (Engel, et al., 1993; April M. Fritch, et al., 2010). Earlier research has shown that childhood trauma acts as a predictor for an array of psychological outcomes; these individuals have a greater risk of developing mental health disorders. In particularly, negative mental health impacts include depression, anxiety, PTSD, suicidality, alcohol and drug addiction, dissociation, eating disorders, somatization, attachment difficulties, OCD, and personality disorders (Banyard, et al., 2001; Campbell & Morrison, 2007; De Bellis & Zisk, 2014; B. S.

Donovan, et al., 1996; Felsher, et al., 2010; Price, Higa-McMillan, Kim, & Frueh, 2013; Silverman, 1972; Tamar-Gurol, Sar, Karadag, Evren, & Karagoz, 2008).

Moreover, the current study also confirms the existence of a relationship between combat trauma and amounts of psychiatric symptoms. Overall, veterans who have experienced a greater amount of combat trauma are likely to endorse a greater number of psychiatric symptoms once they have returned from active duty. Past research has noted that veterans coming back from combat often endorse a wide range of symptoms related to various mental disorders, specifically, PTSD, depression, anxiety, anger problems, and impaired functioning (Baker et al., 2009; Currier, Holland, Jones, & Sheu, 2014; Hassija, et al., 2012; Spiro, Schnurr, & Aldwin, 1997; Wright, Cabrera, Eckford, Adler, & Bliese, 2012; Zinzow, Brooks, & Stern, 2013). The current study also noted that combat trauma was a strong predictor of many psychological symptoms.

In accordance with the first study hypothesis, the interaction effect showed that the amount of psychological symptoms experience depended upon the levels of childhood and combat trauma. Veterans who experienced high amounts of either trauma had a high number of symptoms, regardless of the level of the other trauma. In particular, veterans with a high amount of combat trauma had a high number of symptoms whether they had no childhood trauma or high childhood trauma. Also, veterans who had high childhood trauma had a high number of symptoms whether they had low combat trauma or high combat trauma. Conversely, they had a lower amount of symptoms if they had both low combat exposure and no child trauma. If they had low childhood trauma, their level of symptoms depended on their level of combat trauma: lower total symptoms if combat trauma was low; higher total symptoms if combat trauma has moderate or high.

This is supported by past research that proposes that pre-existing/pre-military factors, such as childhood trauma, play an imminent role in the development of psychiatric symptoms. This theory is in accords with current findings such that those veterans that do have childhood trauma and combat trauma have a higher likelihood of developing severe symptomology (Brown, et al., 2010; B. S. P.-R. Donovan, Edgardo; Dowd, Thomas; Blake, Dudley D.;, 1996; A. M. Fritch, et al., 2010; Goodman & Weiss, 1998; Owens, et al., 2009; Twaite & Rodriguez-Srednicki, 2004).

Childhood trauma and combat trauma are both found to individually impact the psychological distress veterans faced after deployment. Past research has illustrated that this link exists such that those that have faced either childhood trauma or combat exposure have been shown to have a higher likelihood of developing symptoms PTSD, depression, anxiety, and higher susceptibility to developing drug addiction in adulthood. (Briere, 2004; Taft, et al., 2007; Wright, et al., 2011; Zaidi & Foy, 1994). In other words, interaction of multiple exposures to trauma did predict the amount of psychological distress in the current population.

The current study supports previous research indicating that individuals who experienced childhood and combat-related trauma had a greater likelihood of developing posttraumatic stress disorder. Overall, combat-trauma was a stronger predictor that childhood trauma of subsequent PTSD. Furthermore, childhood trauma and combat trauma were predictive of depression and anxiety. Even though there was no significant interaction between childhood and combat related trauma on overall PTSD, depression, and anxiety, the study still confirmed previous findings that both factors effect mental health outcomes (Brown, et al., 2010; Cabrera, et al., 2007; Campbell & Morrison, 2007;

Coates, 2010; Suliman, 2009; Wright, et al., 2011; Yehuda, et al., 2001a). In accordance with past literature, both childhood and combat trauma were shown to predict symptomatology of PTSD (April M. Fritch, et al., 2010). Other studies, showed that combat trauma being the stronger predictor of the PTSD when examining both childhood and combat related trauma (Fontana & Rosenheck, 1994). The current study confirms these results.

The psychological outcomes of PTSD, depression, and anxiety were negatively impacted in this study. Results of the current study are in line with previous findings that childhood trauma and combat-related trauma are related to increased negative mental health symptoms in veterans. It also explores the interaction effects between the two variables wherein the literature has found mixed results, both positive and negative effects. While many of the interaction effects in the current study were not significant, they all displayed an intuitive trend, such that the interaction between combat trauma and childhood trauma was related to increased psychological outcomes. This supports the stress evaporation theory which proposes that those that have been effected by multiple forms of trauma have a greater susceptibility to develop subsequent symptoms when exposed to an equal or greater trauma in adulthood (B. S. Donovan, et al., 1996; Fontana & Rosenheck, 1994; Price, et al., 2013; Qureshi, et al., 2009).

These results should be considered in the context of the study limitations. The data is majority male and cross-sectional. In addition it was self-reported and collected after the occurrence of trauma. These factors may be influenced by subject bias of recall due their retrospective nature. Other limitations of the current study are that it only examined individuals who reported that they had combat trauma and were actively

seeking treatment. It did not allow for the examination of resiliency factors, or childhood trauma separately from combat trauma, as all participants were collected in a clinical population for treatment of PTSD. Additionally, our measure of childhood trauma was quite broad and did not allow for examination of effects related to different forms of childhood trauma.

Despite the limitations of the study there are a number of strengths, such that it adds to the defense that childhood trauma and combat trauma are predictors of severe mental health outcomes in veterans. Exposure to just one of those traumatic events leads to difficulties with assimilation back into daily life. Knowing that these factors do increase mental health symptoms and severity may help us develop new protocols to future treatment for these psychological factors.

Further, the study paints a picture wherein we can begin to explore how treatment may work in veterans who have been exposed to childhood trauma and combat trauma, particularly when these events are tied to their psychological symptomology. A majority of our sample had been exposed to traumatic events in childhood (836 out of 1281). Knowing that this is a large portion of our overall population, it allows us to begin developing clinical interventions that target those that have had multiple exposures to traumatic events. Also, is allows us to approach treating PTSD with the awareness that many of our veterans have been exposed to many traumatic events. Due to the high number of participants endorsing these traumatic events; it calls for further research to examine how we can help form programs either pre-deployment or post-deployment to help alleviate some of the psychological symptoms veterans experience as a result of these events.

Future Directions

Future studies should examine possible resiliency factors that individuals with childhood trauma have developed that allow for less psychiatric symptom development. This information could inform pre-deployment workshops to reduce the number of military personnel returning from combat with psychological disorders. Moreover, due to the existing split in research studying the interaction effect of childhood and combat trauma, it would be imperative to explore possible differences among the populations surveyed. This may allow for identification of unknown factors related to resiliency or susceptibility. Another avenue of research may be the exploration of different types of childhood trauma, (i.e. emotional, sexual, physical abuse and neglect) which may inform different psychological outcomes when paired with combat trauma.

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APPENDIX A

LOS ANGELES SYMPTOM CHECKLIST

(ADULT VERSION)

Below is a list of problems. Rate each one on a scale of 0 to 4 according to how much of a problem that item is for you. A rating of zero would mean that the item is not a problem for you; one, a slight problem; two, a moderate problem; three, a serious problem; and four, an extreme problem.

0	1	2	3	4
not a problem	slight problem	moderate problem	serious problem	extreme problem

____1. difficulty falling asleep
____2. abusive drinking
____3. severe headaches
____4. Restlessness
____5. nightmares
____6. difficulty finding a job
____7. difficulty holding a job
____8. irritability
____9. pervasive disgust
____10. momentary blackouts
____11. abdominal discomfort
____12. management of money
____13. trapped in an unsatisfying job
____14. physical disabilities or medical problems.
____15. hostility/violence
____16. marital problems
____17. easily fatigued
____18. drug abuse
____19. inability to express feelings
____20. tension and anxiety
____21. no leisure activities
____22. suicidal thoughts
____23. vivid memories of unpleasant prior experiences
____24. excessive eating
____25. difficulty concentrating
____26. dizziness/fainting
____27. sexual problems
____28. waking during the night
____29. difficulty with memory
____30. marked self-consciousness
____31. depression
____32. inability to make and keep same sex friends
____33. inability to make and keep opposite sex friends
____34. excessive jumpiness
____35. waking early in the morning
____36. loss of weight/ appetite
____37. heart palpitations
____38. panic attacks
____39. problems with authority
____40. avoidance of activities that remind you of prior unpleasant experiences
____41. trouble trusting others
____42. loss of interest in usual activities
____43. feeling emotionally numb